AMENDMENTS TO THE CLAIMS

Please amend the Claim Form and Claim as follows. Insertions are shown underlined while deletions are ~~struck through~~. Please add Claims 24-31.

1 (currently amended): An electrode comprising a porous conductive substrate as well as an electrode active material and a conductive auxiliary filled in the pores in the substrate, wherein a ratio of the conductive auxiliary to the electrode active material is 50 % by weight or less, wherein the electrode active material is a proton-conducting compound which is subjected to an oxidation-reduction reaction with ions in an electrolyte, said electrode active material being selected from the group consisting of indole π-conjugated compounds, quinones, and quinone polymers.

2 (original): The electrode as claimed in Claim 1, wherein the porous conductive substrate is a carbon fiber sheet.

3 (original): The electrode as claimed in Claim 1, wherein the porous conductive substrate before filling has a porosity of 50 to 85 %.

4 (original): The electrode as claimed in Claim 1, wherein the porous conductive substrate has a filling rate of 5 % or more.

5 (canceled):

6 (canceled):

7 (original): The electrode as claimed in Claim 1, comprising at least one of particulate carbon and fibrous carbon as the conductive auxiliary.

8 (previously presented): An electrochemical cell, wherein at least one of electrodes is the electrode as claimed in Claim 1.

9 (original): The electrochemical cell as claimed in Claim 8, wherein the electrochemical cell is a secondary battery.

10 (original): The electrochemical cell as claimed in Claim 8, wherein the electrochemical cell is a capacitor.

11 (currently amended): An electrode comprising:

a conductive thin sheet having a porous structure;

proton-conducting particles; and

conductive auxiliary particles, wherein the proton-conducting particles and the conductive auxiliary particles are dispersed and filled uniformly in the porous structure of the conductive thin sheet, wherein the proton-conducting particles are subjected to an oxidation-reduction reaction with ions in an electrolyte, wherein the conductive auxiliary particles are used less than the proton-conducting particles by weight, said proton-conducting particles being made of an electrode active material selected from the group consisting of indole π-conjugated compounds, quinones, and quinone polymers.

12 (previously presented): The electrode as claimed in Claim 11, wherein the conductive thin sheet has a porosity of 50 to 85 % before filling.

13 (previously presented): The electrode as claimed in Claim 11, wherein the conductive thin sheet is filled with the proton-conducting particles and the conductive auxiliary particles at a filling rate of 5 % or higher.

14 (canceled):

15 (previously presented): The electrode as claimed in Claim 11, wherein the conductive thin sheet is a carbon fiber nonwoven sheet.

16 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 2.

17 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 3.

18 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 4.

19 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 5.

20 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 6.

21 (previously presented): An electrochemical cell comprising electrodes, wherein at least one of said electrodes is the electrode as recited in Claim 7.

22 (previously presented): An electrochemical cell for a secondary battery, which comprises the electrode as recited in Claim 7.

23 (previously presented): An electrochemical cell for a capacitor, which comprises the electrode as recited in Claim 7.

24 (new): An electrode comprising a porous conductive substrate as well as an electrode active material and a conductive auxiliary filled in the pores in the substrate, wherein a ratio of the conductive auxiliary to the electrode active material is 50 % by weight or less, wherein the electrode active material is a proton-conducting compound which is subjected to an oxidation-reduction reaction with ions in an electrolyte, said electrode active material being selected from the group consisting of poly-p-phenylene, polyphenylene-vinylene, polyperinaphthalene, polyfuran, polyflurane, polythienylene, polypyridinediyl, polyisothianaphthene, polyquinoxaline, polypyrimidine, polyindole, polyaminoanthraquinone, polyimidazole, and derivatives of the foregoing.

25 (new): An electrochemical cell, wherein at least one of electrodes is the electrode as claimed in Claim 24.

26 (new): An electrode comprising:

a conductive thin sheet having a porous structure;

proton-conducting particles; and

conductive auxiliary particles,

wherein the proton-conducting particles and the conductive auxiliary particles are dispersed and filled uniformly in the porous structure of the conductive thin sheet, wherein the proton-conducting particles are subjected to an oxidation-reduction reaction with ions in an electrolyte, wherein the conductive auxiliary particles are used less than the proton-conducting particles by weight, and wherein the proton-conducting particles are made of an electrode active material selected from poly-p-phenylene, polyphenylene-vinylene, polyperinaphthalene, polyfuran, polyflurane, polythienylene, polypyridinediyl, polyisothianaphthene, polyquinoxaline, polypyrimidine, polyindole, polyaminoanthraquinone, polyimidazole, and derivatives of the foregoing.

27 (new): An electrochemical cell, wherein at least one of electrodes is the electrode as claimed in Claim 25.

28 (new): An electrode comprising a porous conductive substrate as well as an electrode active material and a conductive auxiliary filled in the pores in the substrate, wherein a

ratio of the conductive auxiliary to the electrode active material is 50 % by weight or less, wherein the electrode active material is a proton-conducting compound which is subjected to an oxidation-reduction reaction with ions in an electrolyte, said electrode active material being selected from the group consisting of proton-conducting polymers obtained by copolymerizing multiple monomers constituting different polymers or compounds selected from the group consisting of π-conjugated polymers, indole π-conjugated compounds, quinones, and quinone polymers.

29 (new): An electrochemical cell, wherein at least one of electrodes is the electrode as claimed in Claim 28.

30 (new): An electrode comprising:

a conductive thin sheet having a porous structure;

proton-conducting particles; and

conductive auxiliary particles,

wherein the proton-conducting particles and the conductive auxiliary particles are dispersed and filled uniformly in the porous structure of the conductive thin sheet, wherein the proton-conducting particles are subjected to an oxidation-reduction reaction with ions in an electrolyte, wherein the conductive auxiliary particles are used less than the proton-conducting particles by weight, said proton-conducting particles being made of an electrode active material selected from the group consisting of proton-conducting polymers obtained by copolymerizing multiple monomers constituting different polymers or compounds selected from the group consisting of π-conjugated polymers, indole π-conjugated compounds, quinones, and quinone polymers.

31 (new): An electrochemical cell, wherein at least one of electrodes is the electrode as claimed in Claim 30.